

KIC 008025773

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008025773-01	OBS	No	163.976573	250.187137	160.2	9.758	7.3	5.5	4.05	5026	6.24	20.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008025773-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

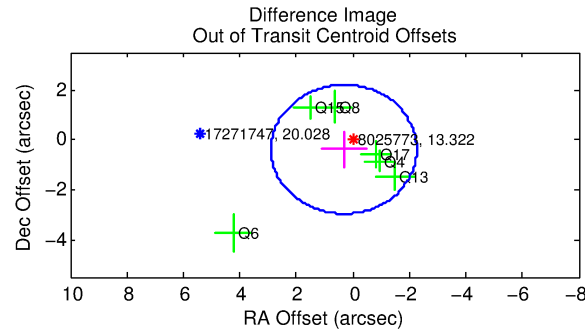
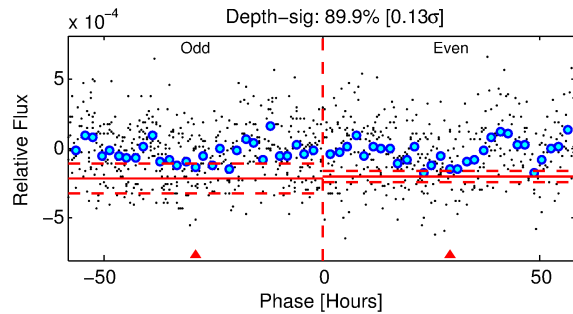
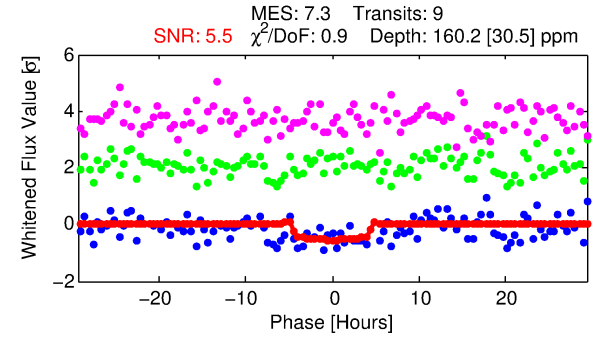
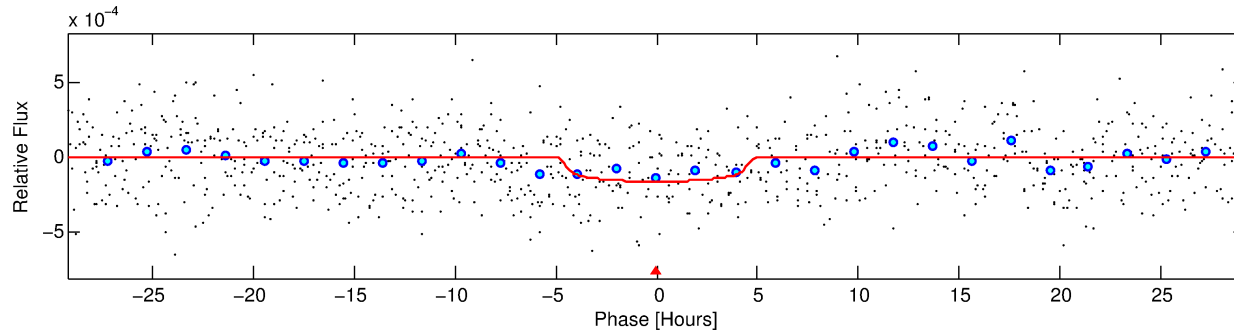
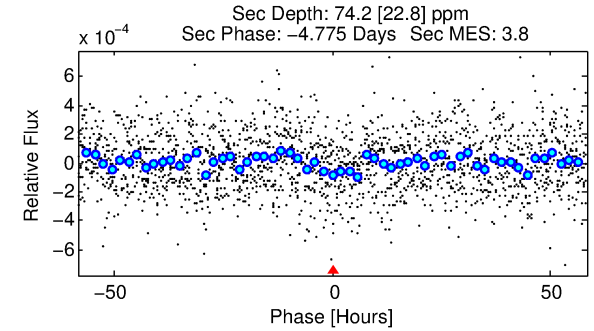
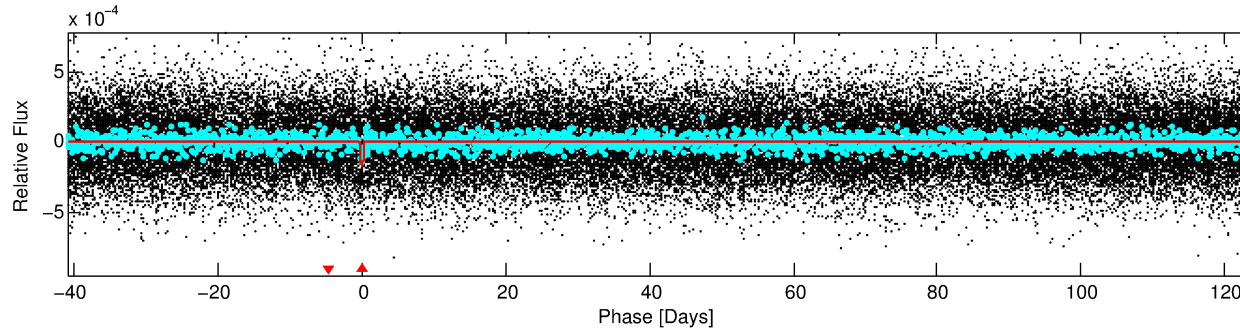
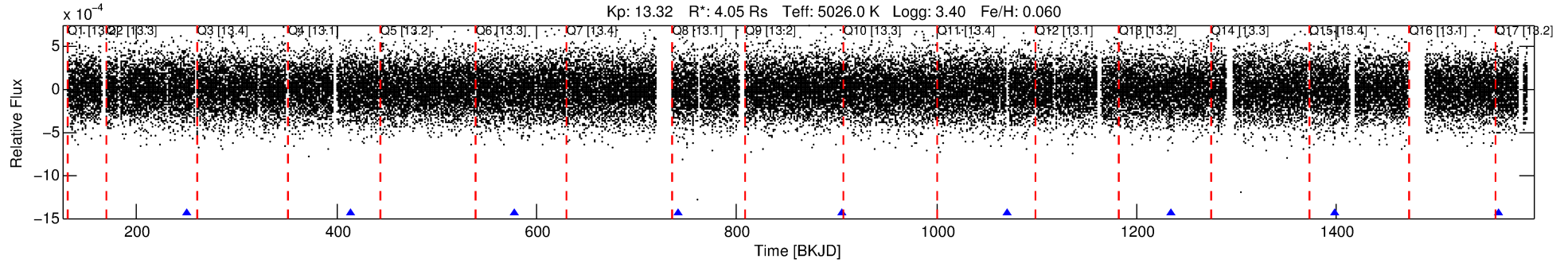
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008025773-01

No Significant Match Found

DV One-Page Summary

KIC: 8025773 Candidate: 1 of 1 Period: 163.977 d



DV Fit Results:

Period = 163.97657 [0.00511] d
Epoch = 250.1871 [0.0233] BKJD
Rp/R* = 0.0141 [0.0045]
a/R* = 59.91 [74.54]
b = 0.90 [0.27]
Seff = 20.74 [6.54]
Teq = 544 [43] K
Rp = 6.24 [2.53] Re
a = 0.6733 [0.1408] AU
Ag = 474.96 [367.81] [1.29σ]
Teffp = 3927 [703] K [4.81σ]

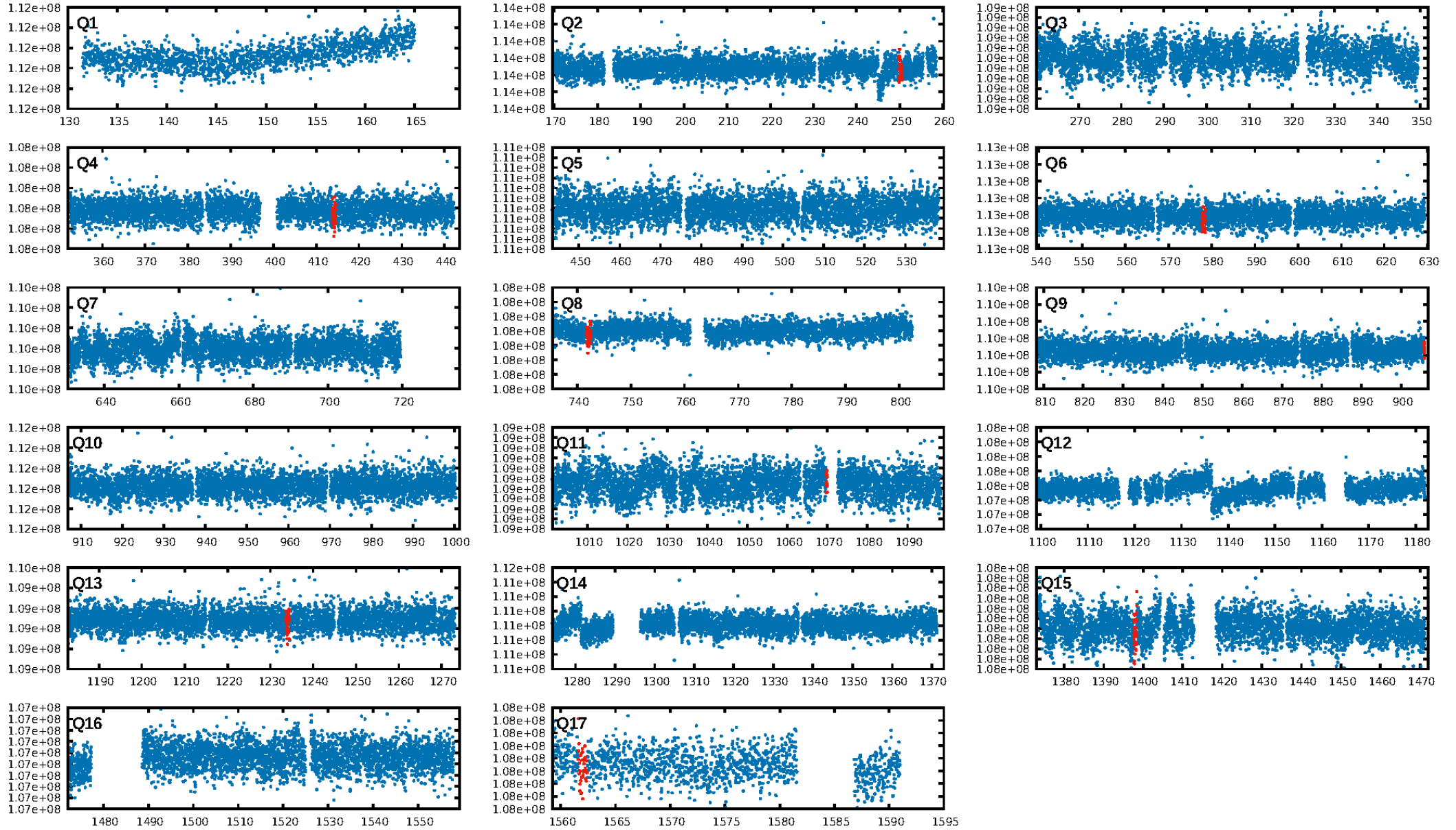
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 94.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.24e-13
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 3.106
Centroid-sig: 16.9%
Centroid-so: 1.389 arcsec [1.03σ]
OotOffset-rm: 0.502 arcsec [0.58σ]
KicOffset-rm: 0.385 arcsec [0.45σ]
OotOffset-st: 1/1/2/2 [6]
KicOffset-st: 1/1/2/2 [6]
DiffImageQuality-fgm: 0.83 [5/6]
DiffImageOverlap-fno: 1.00 [7/7]

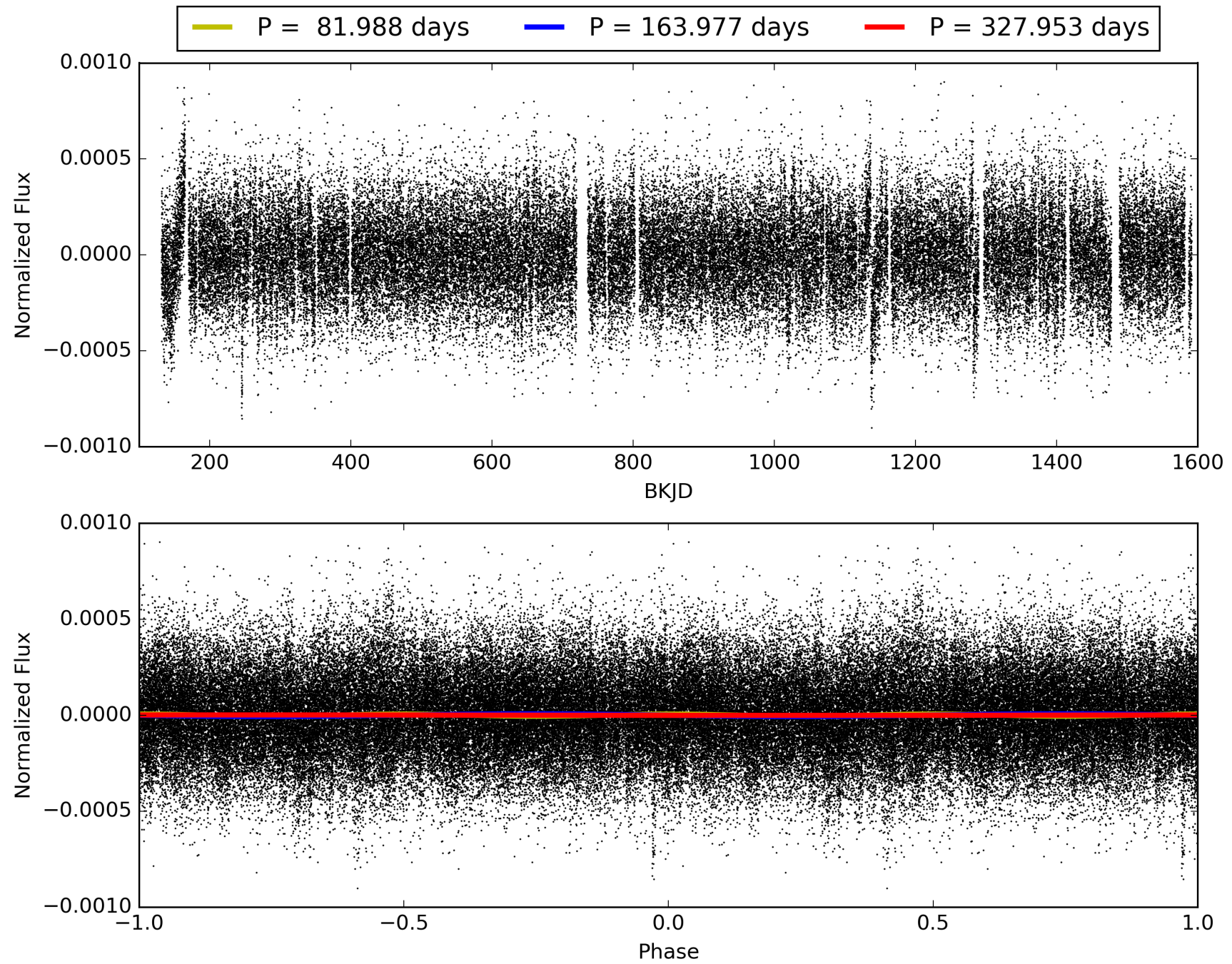
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:27:19 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008025773-01, PDC Light Curves

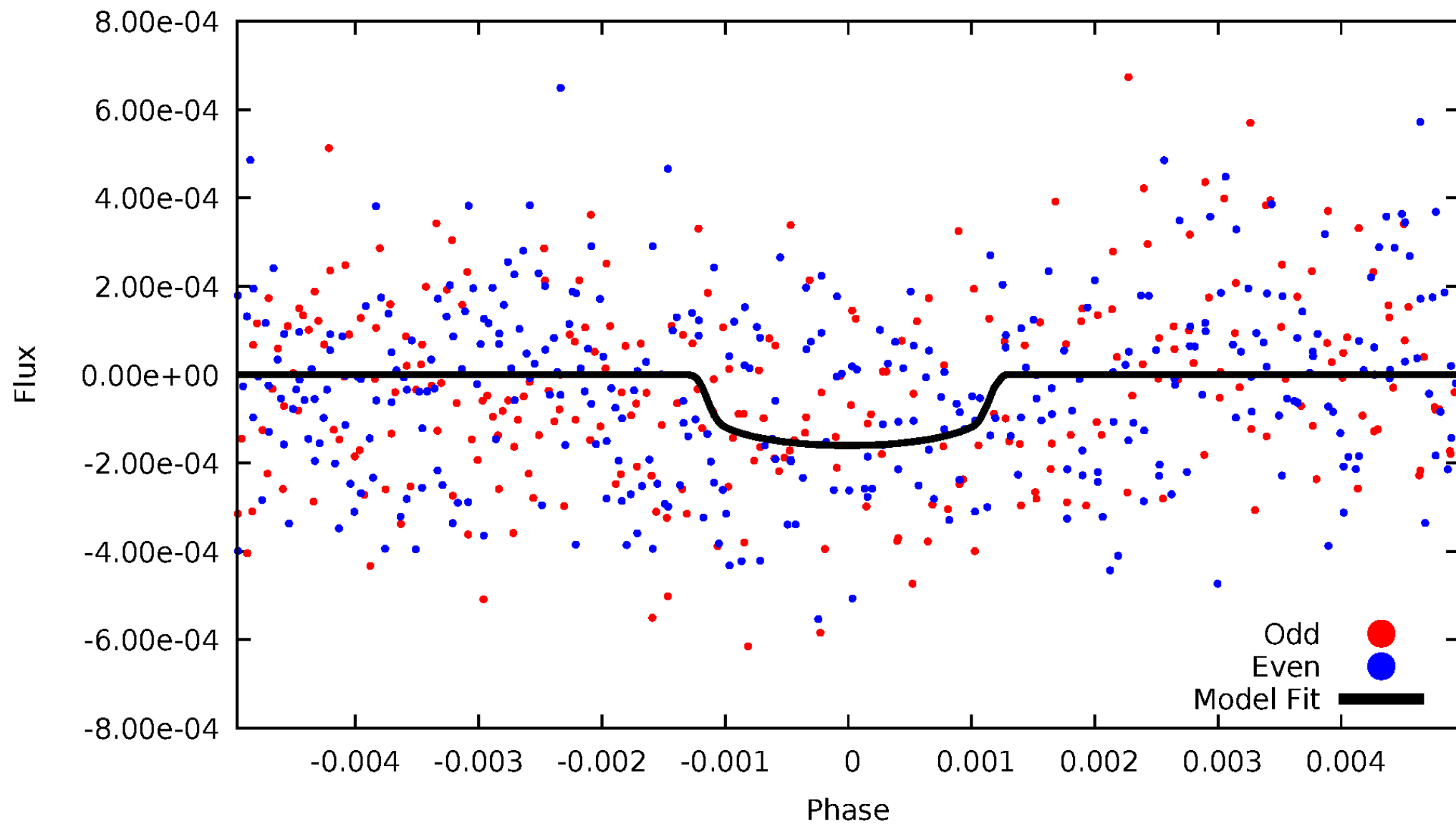


TCE 008025773-01



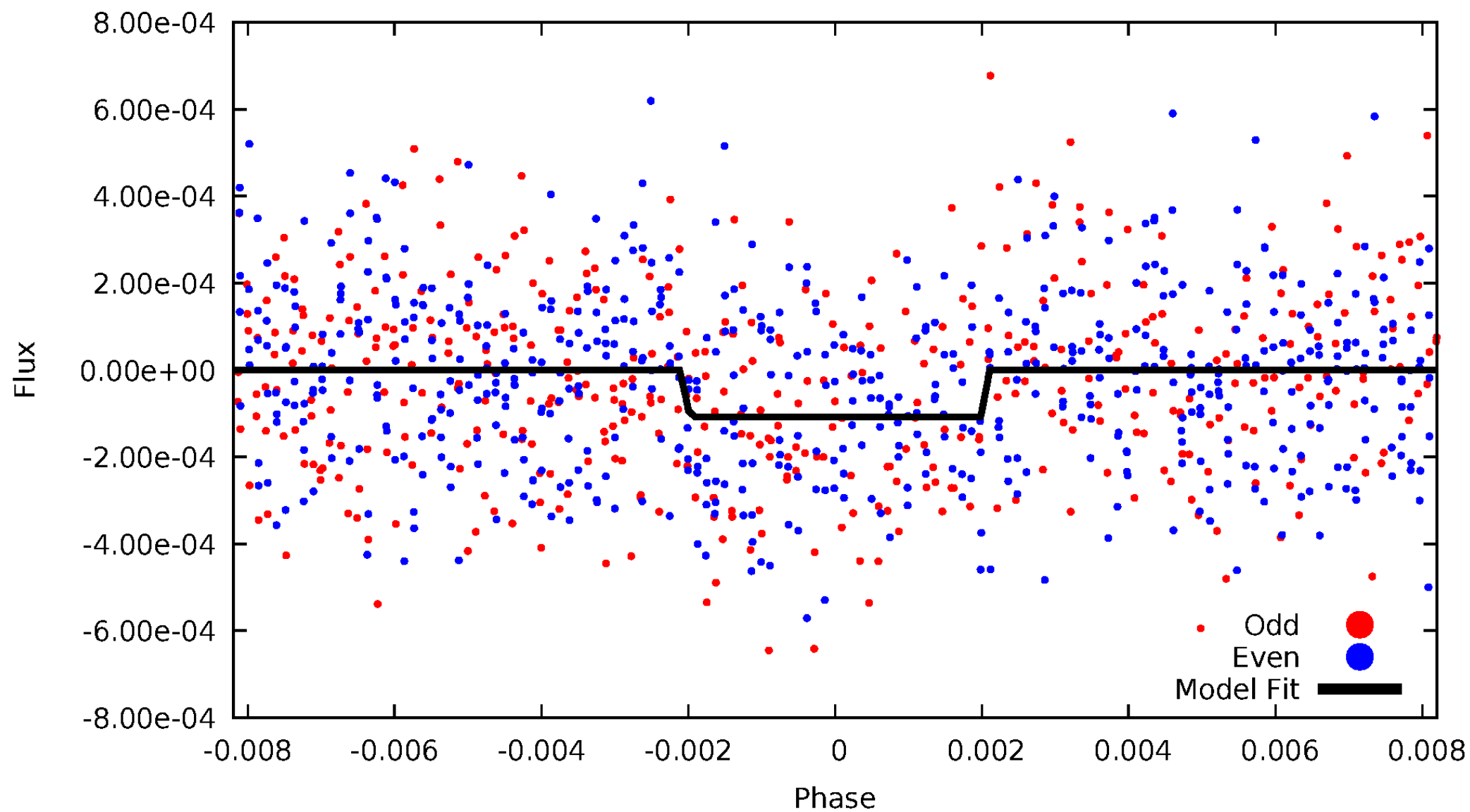
DV Odd/Even

TCE 008025773-01



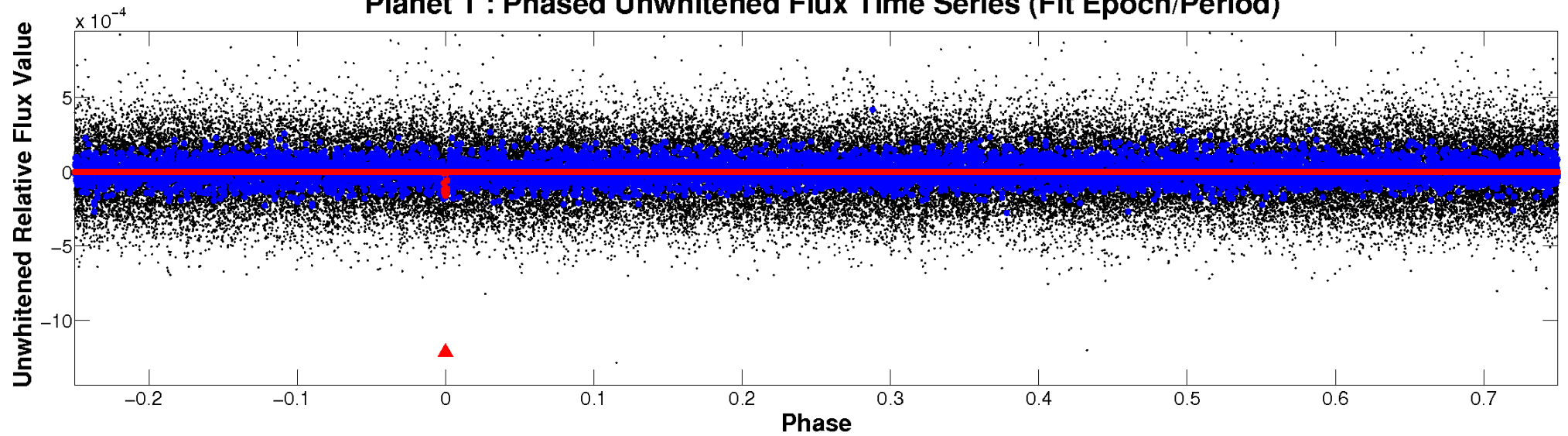
ALT Odd/Even

TCE 008025773-01

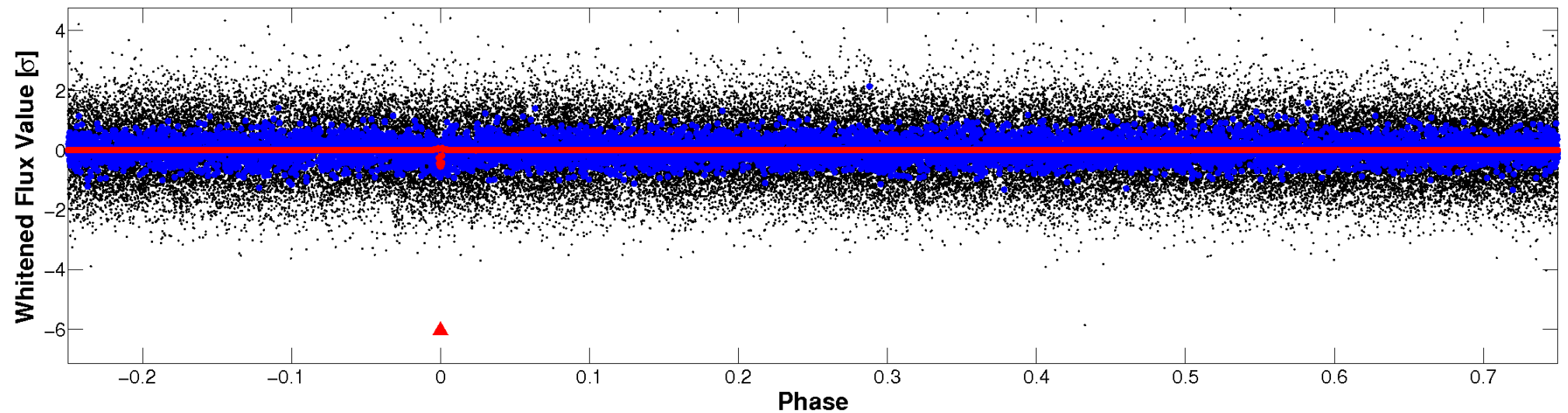


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)



Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



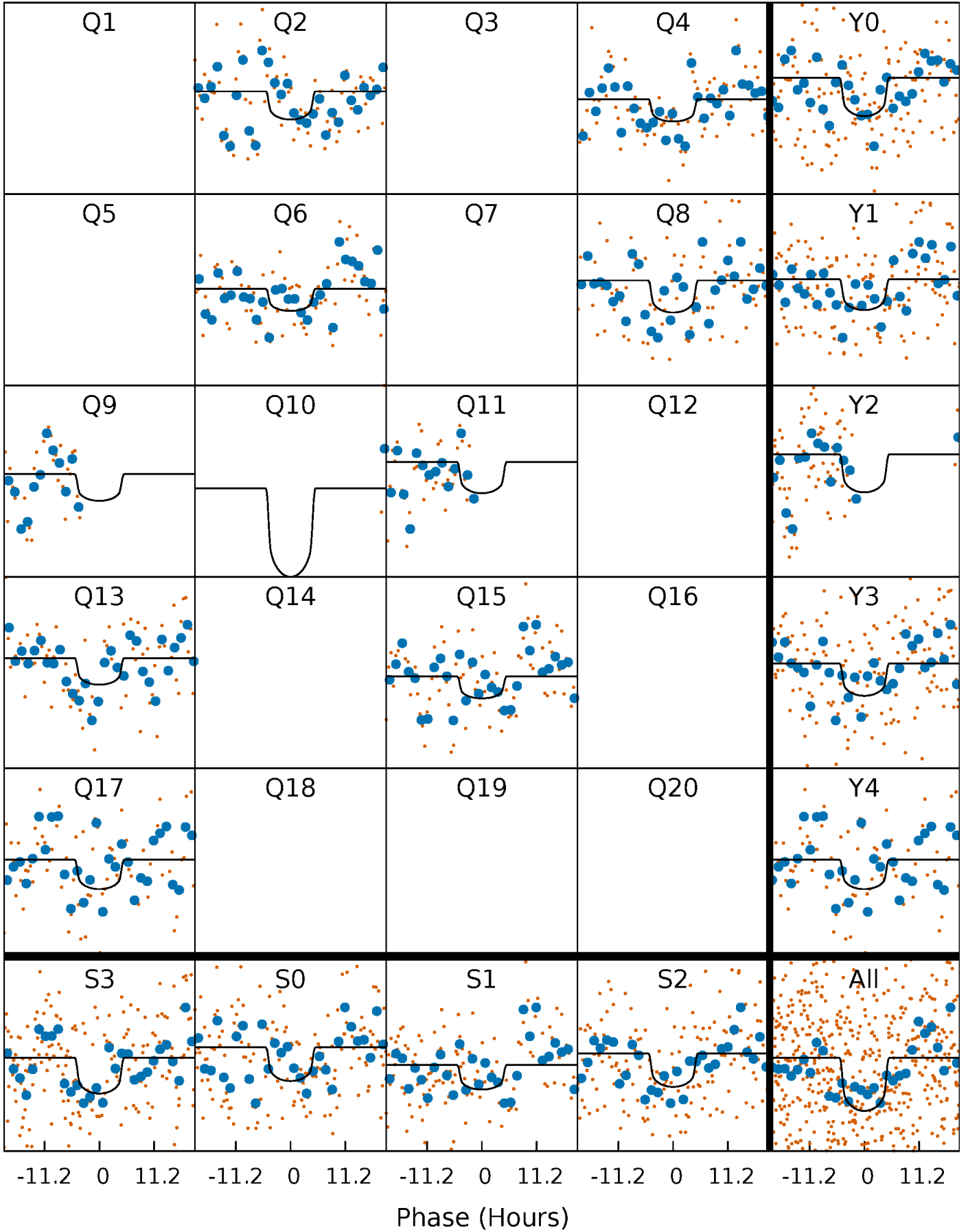
PDC Quarter-Phased Transit Curves

TCE 008025773-01 P=163.976573 Days $T_0=250.187137$ (BKJD)



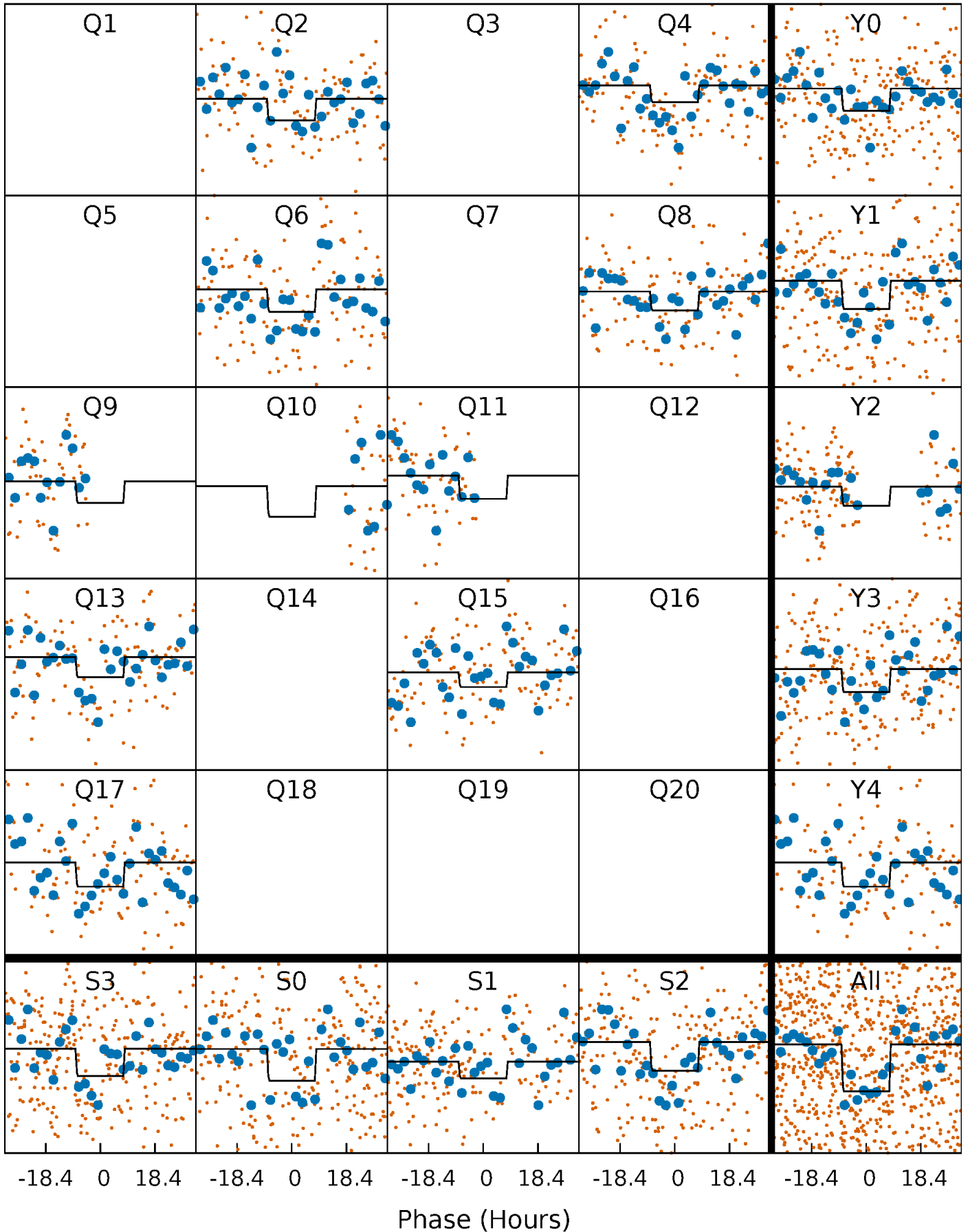
DV Quarter-Phased Transit Curves

TCE 008025773-01 P=163.976573 Days $T_0=250.187137$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

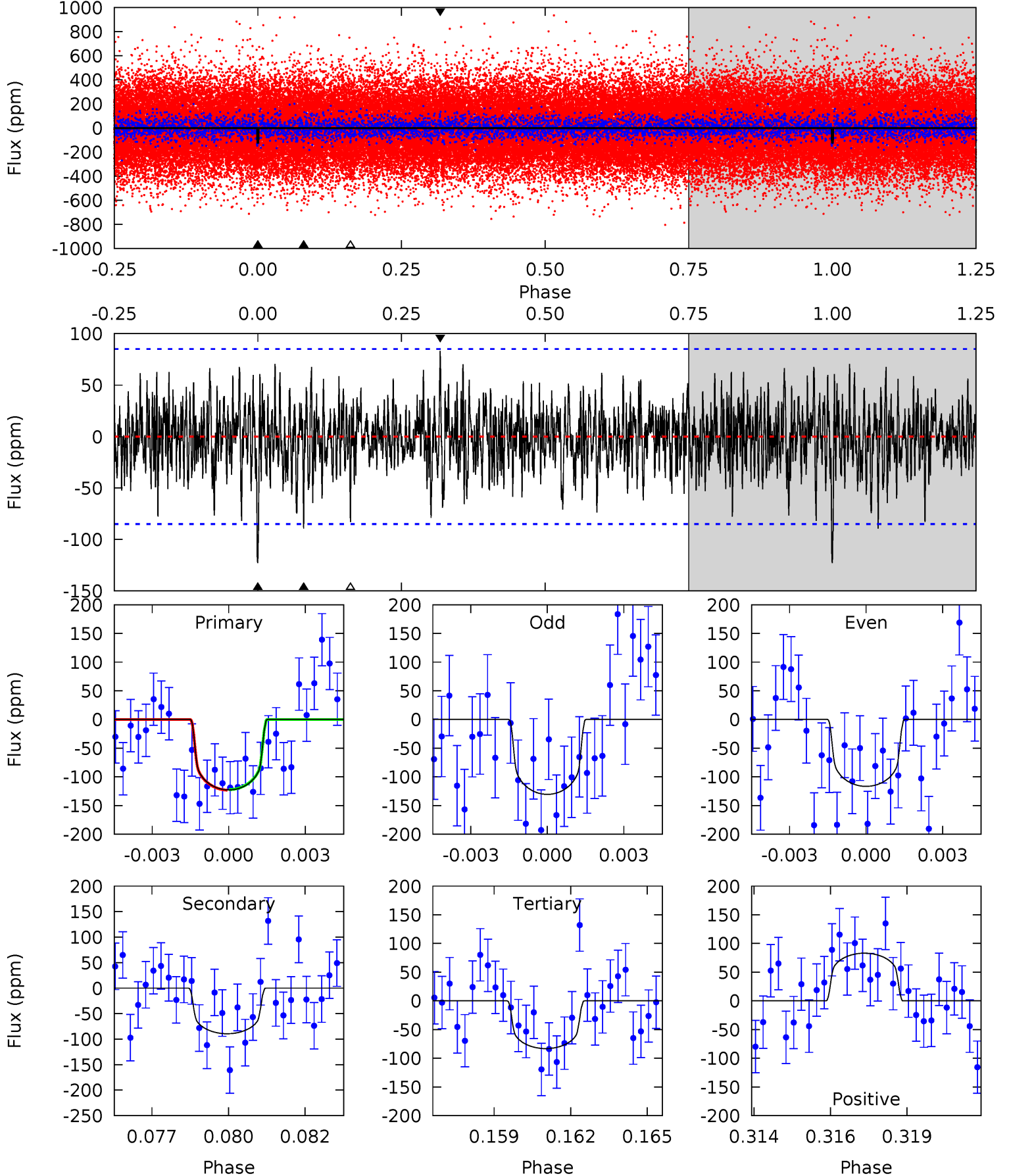
TCE 008025773-01 P=163.979319 Days $T_0=250.193792$ (BKJD)



DV Model-Shift Uniqueness Test

008025773-01, P = 163.976573 Days, E = 86.210564 Days

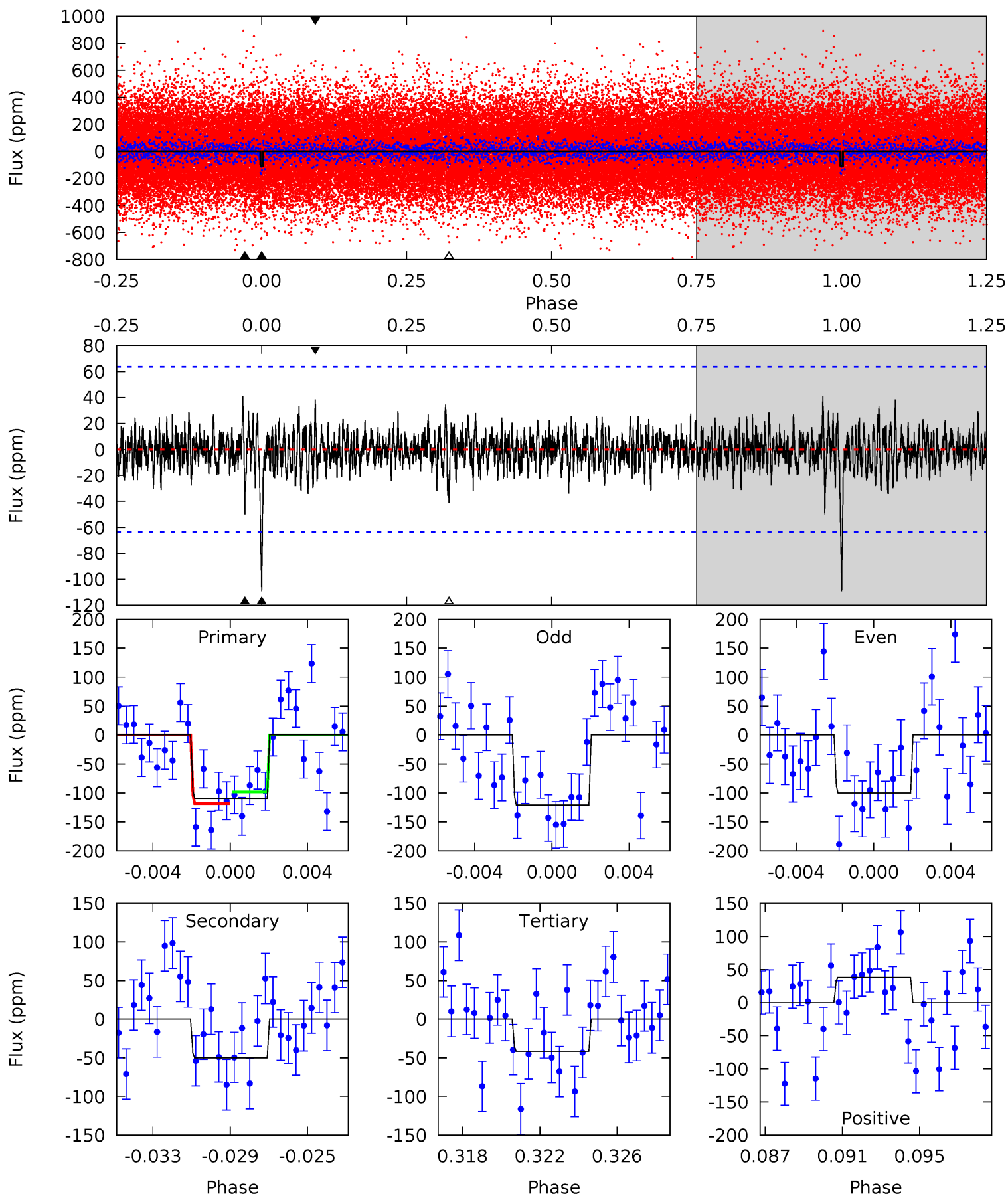
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.63	5.55	5.16	5.16	5.28	3.01	1.55	2.46	2.47	0.39	0.39	0.43	1.29	0.40	0.03



Alt Model-Shift Uniqueness Test

008025773-01, P = 163.979319 Days, E = 86.214473 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.91	4.07	3.38	3.13	5.19	2.87	0.87	5.53	5.78	0.69	0.94	0.84	0.81	0.27	0.81



Stellar Parameters For KIC 008025773

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5026^{+52}_{-97}	$3.402^{+0.168}_{-0.112}$	$0.060^{+0.100}_{-0.200}$	$4.055^{+0.667}_{-1.001}$	$1.514^{+0.176}_{-0.411}$	$0.032^{+0.029}_{-0.010}$
	+1%/-2%	+5%/-3%	+167%/-333%	+16%/-25%	+12%/-27%	+91%/-32%
Source	SPE74	SPE74	SPE74	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008025773-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-89 ± 16	$6.07^{+2.13}_{-1.92}$	756^{+39}_{-37}	4300^{+661}_{-432}	605^{+674}_{-275}
Alt.	-50 ± 12	$4.46^{+2.06}_{-1.96}$	755^{+38}_{-46}	4268^{+1144}_{-535}	611^{+1336}_{-339}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

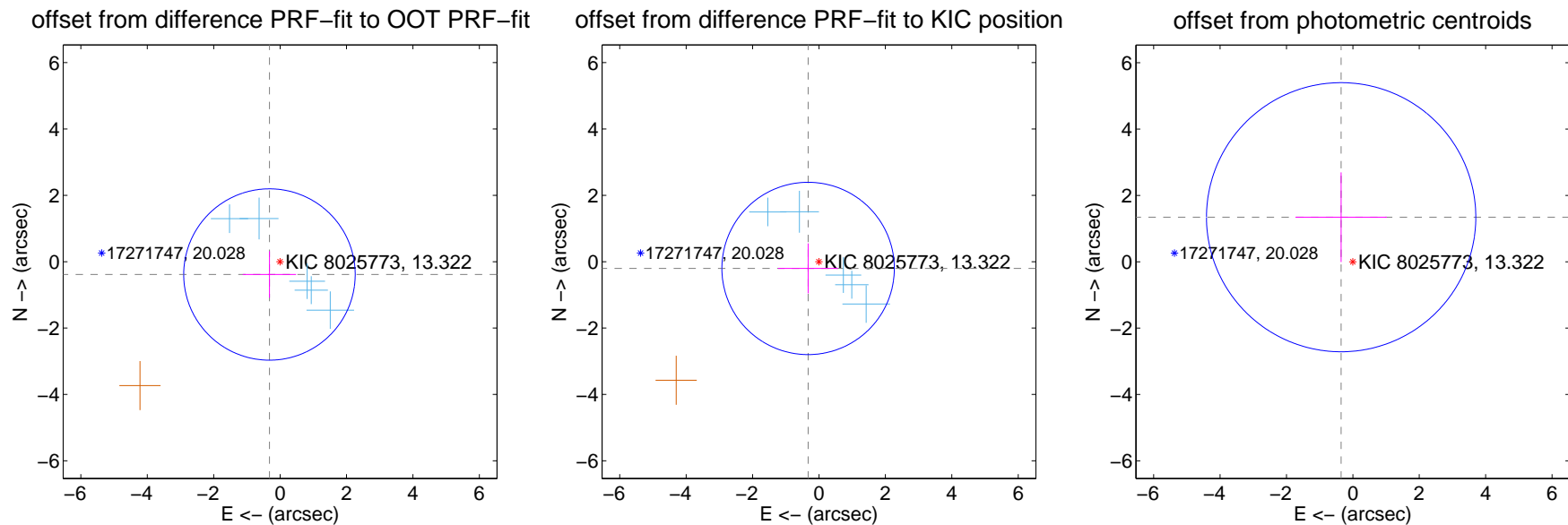
DV Centroid Data

Supplemental centroid analysis for 008025773-01. Kepler magnitude: 13.32. Transit SNR 5.55

There are 5 quarters with good PRF difference image offsets

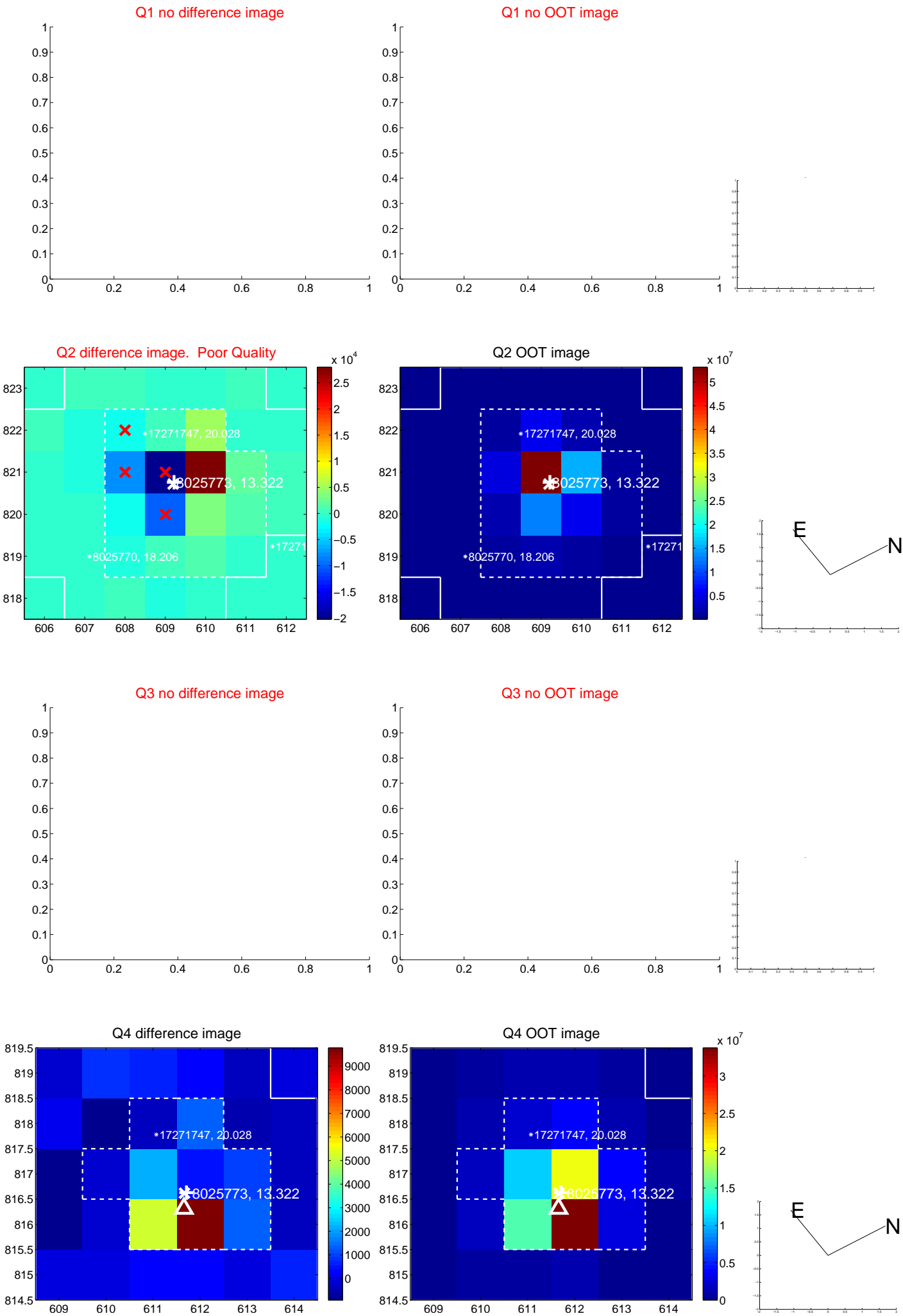
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.502 ± 0.861	0.58	0.321 ± 0.802	-0.386 ± 0.700
PRF-fit source offset from KIC position	0.385 ± 0.865	0.45	0.327 ± 0.905	-0.203 ± 0.755
photometric centroid source offset	1.39 ± 1.35	1.03	0.35 ± 1.38	1.34 ± 1.35

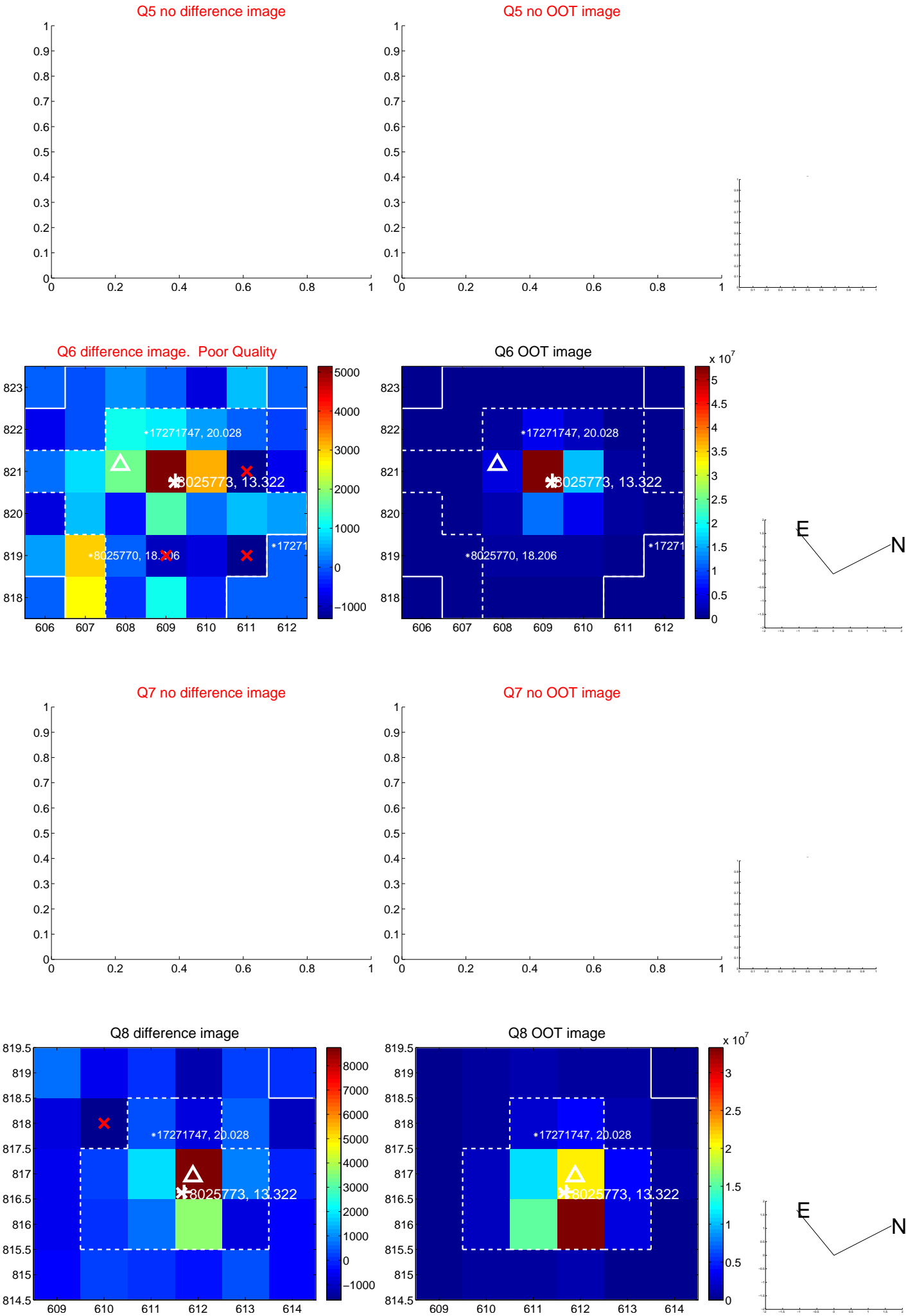


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



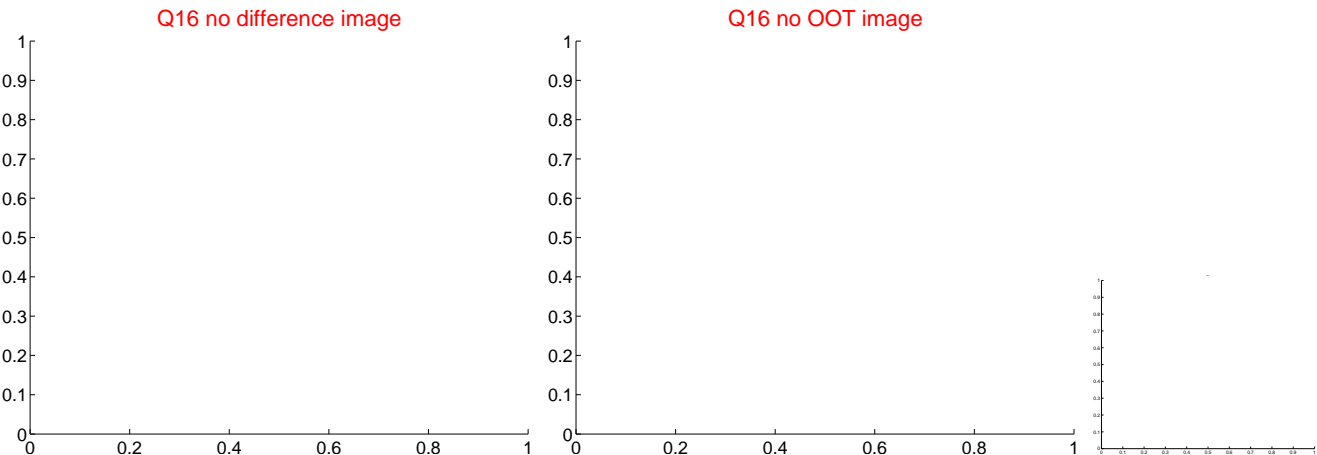
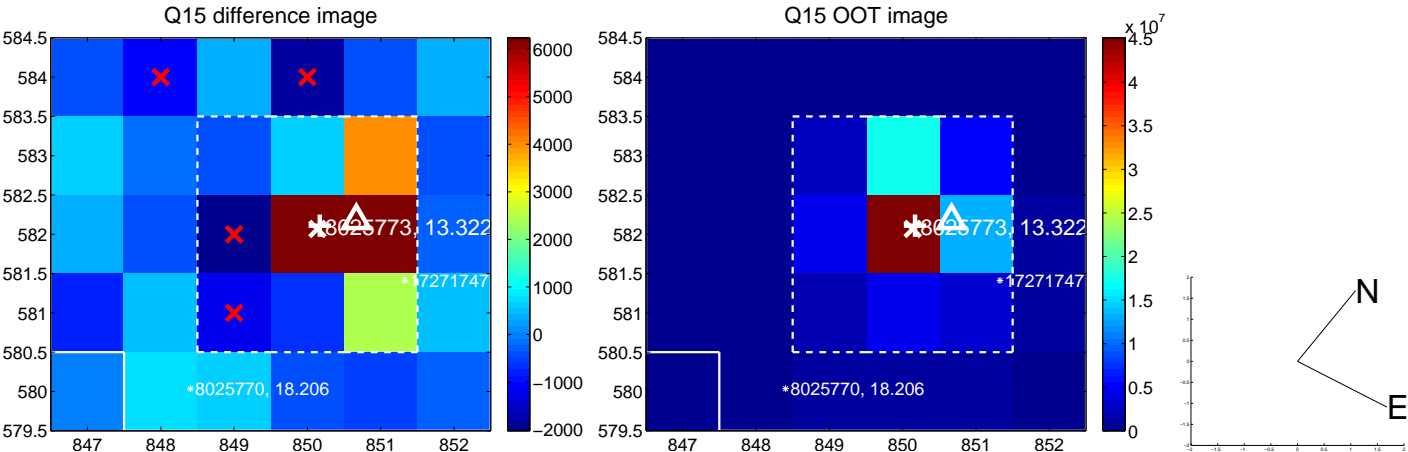
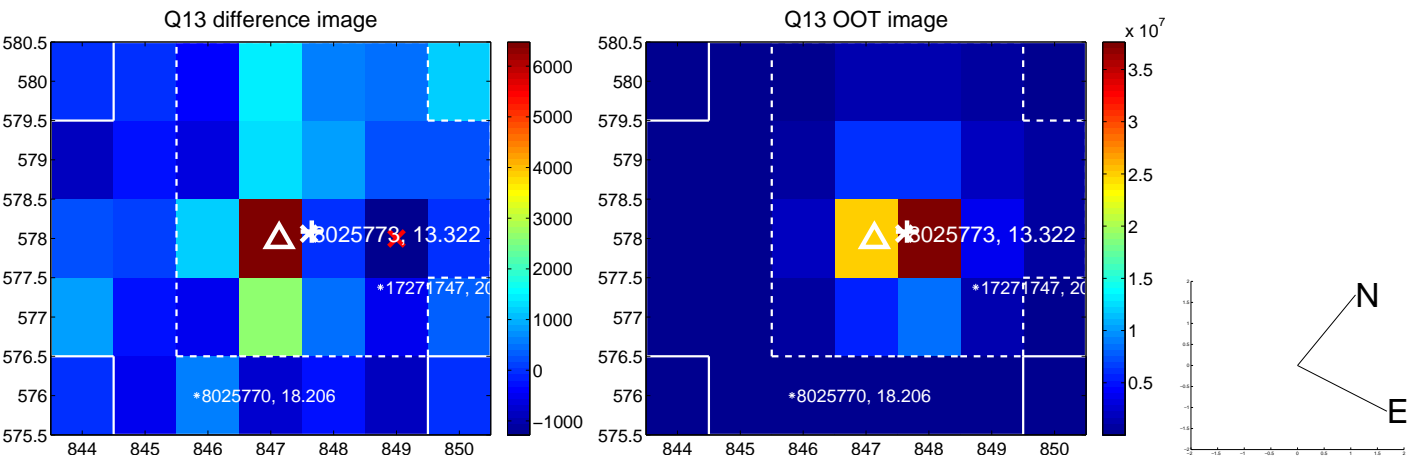
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



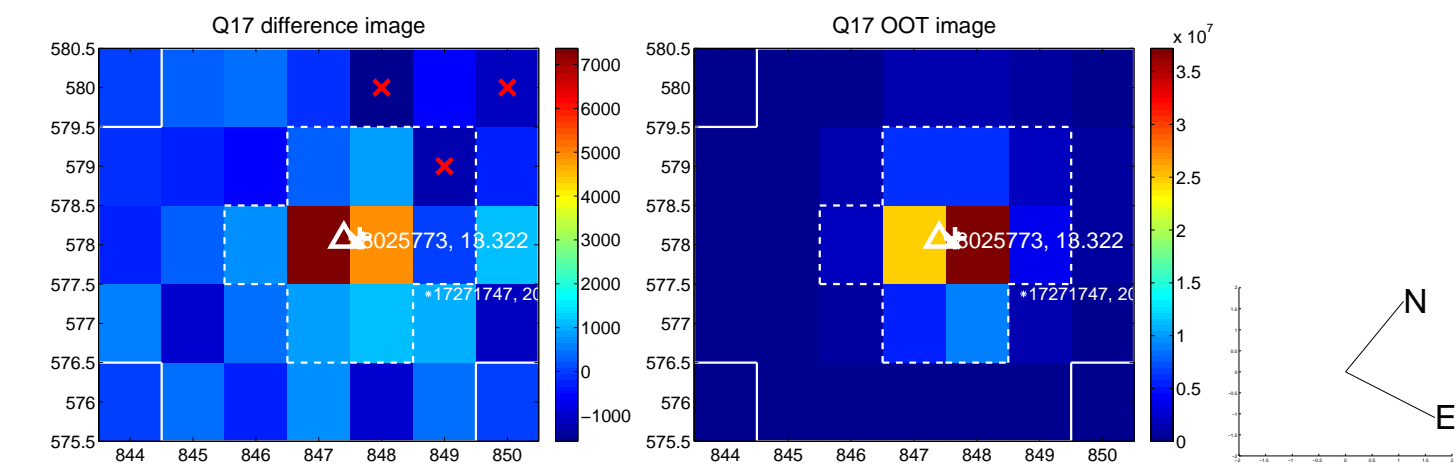
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



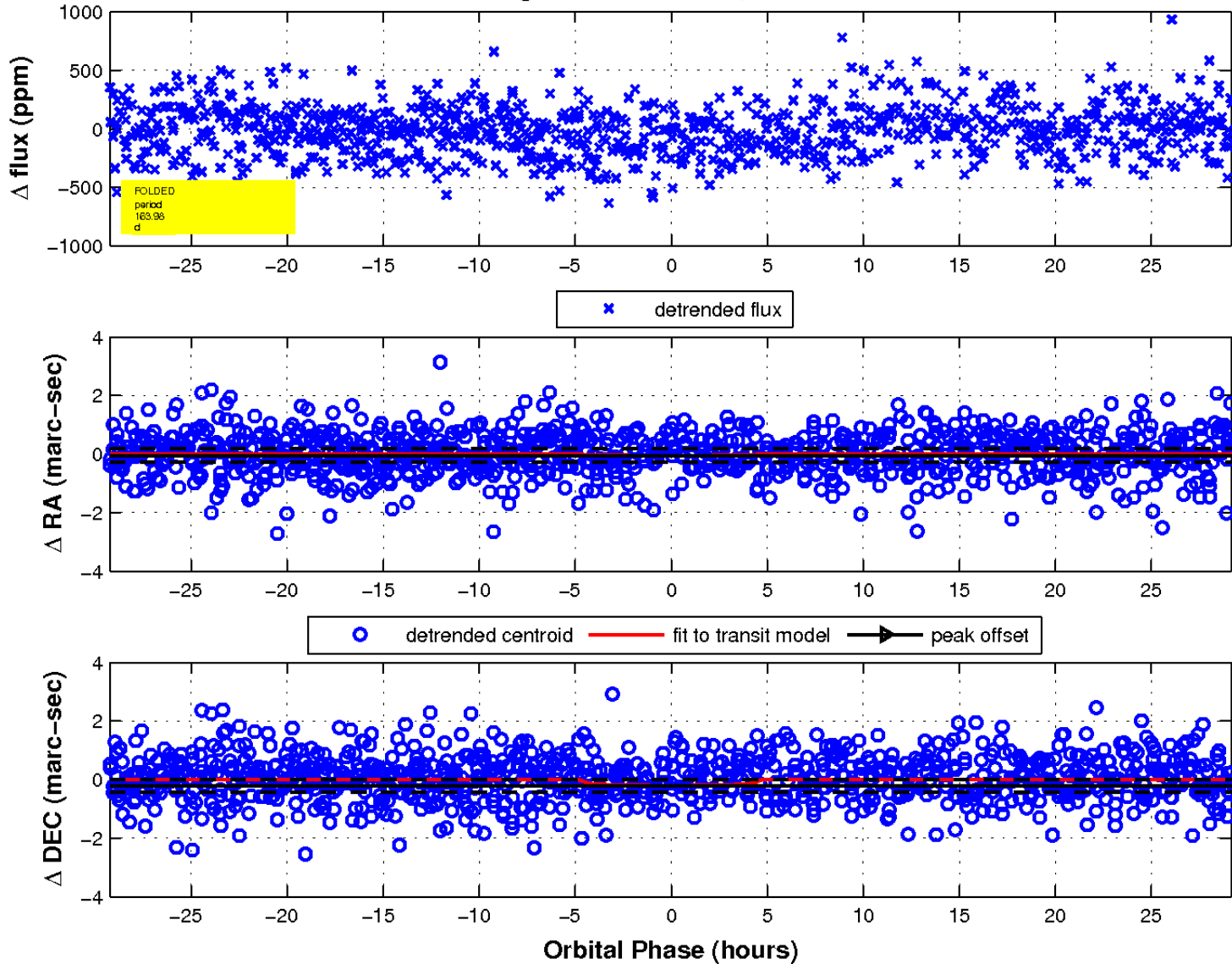
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

